There are four plates in the first part of this book, the only pictures it contains; and they are all taken from the work on storms by Blasius. In the 'Scholia' of the second part, there are several papers by well-known meteorologists: some of them are credited to their original place of publication; but several others are appropriated, in a more or less condensed form, with their author's name at the head of each, as if, in distinction to the first, these were written expressly for this book. It may be that the omission of acknowledgment results simply from carelessness; but, in any case, it is not to be lightly excused. Why should not professors demand as much care in these matters from their publishers as from their students?

LETTERS TO THE EDITOR.

Why is water considered ghost-proof?

As a possible partial explanation of the fact referred to by Dr. Edward B. Tylor, in his address before the Anthropological society of Washington (see *Science*, iv. 548, col. 2), of the wide-spread belief among savages 'that water is impassable to spirits,' the obstacle which it presents to dogs in pursuing their prey by scent may be suggested. This latter fact must be well known to most uncivilized races; and the mystery of tracking by scent must furnish a fertile theme for the exercise of the savage imagination, while the scent itself of a human being would be readily attributed to his spirit. Can anthropologists show any 'historical connection' between the fact and the belief? Lester F. Ward.

Hollyhock-disease and the cotton-plant.

The hollyhock-disease has been a bane to European gardeners for ten years past. It is one of the most destructive of plant-diseases; being able to kill young plants within a week from the time of its attack, and making sad havoc wherever it appears. It is a parasitic rust (Puccinia malvacearum Mont.) to be associated with the rusts of wheat and oats, and is not confined to hollyhocks, but attacks many other members of the mallow family, such as the upright mallow in particular, marsh mallow, German Lavatera, the common weed known as Indian mallow or velvet-leaf, and many others. Winter gives a list of twenty-four species.

The disease was introduced into Europe from Chili in 1869, appearing first in Spain. In four years it had spread through France and the southern portions of Germany and England, reaching northern Germany in 1874, and Ireland in 1875. It has also appeared in Australia and the Cape of Good Hope, but has not yet, in all probability, invaded North America. The plant reported under this name from California is doubtless another species, as I am informed by Dr. Farlow, who has examined Californian specimens, although not those of the original collector. The mention by Burrill of its introduction into this country is an error, as I have learned from the author. A disease sometimes spoken of in American journals under this name is due to an entirely different cause.

Its introduction from Europe, which is most likely to occur through the importation of hollyhock-seeds, should be guarded against. But a still greater interest attaches to the disease in regard to its possible relation to the future of the cotton industry. The cotton-plant is a member of the mallow family, and, so far as one may judge *a priori*, would fall a ready prey to the disease. It occurred to me to obtain some disease-spores from Europe, and test their growth on cotton; but, fearing the disease might escape from my control, I finally interested my friend, Mr. Charles B. Plowright of King's Lynn, Eng., in the subject, who offered to undertake the necessary experiments.

Mr. Plowright reports, under date of Nov. 26, as follows:—

"Six young cotton-seedlings were, on July 12, infected with germinating-spores of Puccinia malvacearum. The plants were quite young, and the spores were applied to the cotyledons. No result.

"Six young cotton-plants which possessed true leaves were, on June 19, infected with P. malvacearum. No result. June 29, infected same plants again. No result.

"In July these plants were planted out in the garden; and beside them a healthy specimen of Malva sylvestris was also planted. At the beginning of August, four small Malvae, affected with the Puccinia, were planted so near the cottons and healthy mallow that the diseased foliage of the one touched the healthy foliage of the other.

"Aug. 20. The healthy mallow has become affected with the Puccinia: the cottons have not. The plants were left growing together to the end of summer, but the cotton-plants remained free from the Puccinia until they died from the cold of autumn some time in October."

It is a relief to find that our apprehensions regarding the dire consequences that might follow the introduction of this destructive rust are without foundation, so far as the cotton-plant is concerned. The mallow family is divided into two tribes; the first including the true mallows, and the second the rose mallows. Among the best-known members of the latter are the shrubby Althaea, okra, and cotton. I am unable to find any record of any of this tribe taking the disease, and it is probable that the true mallows only are subject to it. J. C. Arthur.

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Military cetology.

In the exhaustive essay upon brush-making, by Capt. A. L. Varney, in the last report of the secretary of war (vol. iii. p. 190), I find, in connection with much information of interest to the zoölogist, some remarks upon cetaceans which are unique in their way, and show how dangerous it is for one unacquainted with a subject to attempt to instruct others therein. After stating that "whalebone, or baleen, is a horny substance, consisting of fibrous laminae *laid lengthwise along the upper jaw of the whale*," our author proceeds to give the following information about the order Cetacea in general:—

"Zoölogically, whales, or mammalia of the cetacean order, are divided into two great families,—'blowing' cetacea, so called from the habit of spouting water through the nasal openings or spiracles in the top of the head; and 'herbivorous' cetacea (Manati). The family of 'blowing' cetacea is divided into two tribes,—the tribe of whales (Balaena); and the dolphin tribe, distinguished mainly by the size and shape of the head.